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EXAMINER

PAPE, ZACHARY

ART UNIT PAPER NUMBER

2835

DATE MAILED: 07/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/816,245

Applicant(s)

STROBEL, LARRY A.

Examiner

Zachary M. Pape

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-7 and 9-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29 is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 12-28 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

The following office action is in response to applicant's correspondence dated 5/18/2005.

The indicated allowability of claims 2 and 8 is withdrawn in view of the newly discovered reference(s) to Anderson (US 4,352,274). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 24-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular in claim 24 the phrase, "blowing the air from the cooling unit to a first region within the enclosure, while preventing the air from circulating inside the enclosure but outside the personal computer" does not enable the examiner to properly examine the claim.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 6-7, 12-14, 16, 18, 20, and 24-28 are rejected under 35

U.S.C. 102(b) as being anticipated by Anderson et al. (US 4,352,274).

With respect to claim 1, Anderson et al. teaches a computer system comprising: a cabinet (402) having a closure configured to be substantially airtight when closed; a personal computer (Comprising the CPU, motherboard, and other circuit boards) positioned within the cabinet (Via the card cage (416, 417, 419, 423) a gasket (561) positioned in a space between an inner surface of the cabinet (Adjacent 562) and an outer surface of the personal computer configured to prevent passage of air through the space between the personal computer and the inner surface of the cabinet between a first region and a second region (The gasket (561) prevent the warm hot air of the first region from entering the second region (Where the PC is located)); and a cooling unit (514) positioned within the cabinet, the cooling unit configured to draw air from the first region of the cabinet (Between the fan and the evaporator), cool the air and output the air into the second region of the cabinet (Where the PC is located).

With respect to claim 5, Anderson et al. further teaches a jump cable (570) coupled at a first end to a port of the computer, and coupled at a second end to a port in a wall of the cabinet.

With respect to claim 6, Anderson et al. further teaches an environmental control unit for a personal computer comprising: an enclosure (402) configured to substantially enclose the computer, means (561) for preventing circulation of air within the enclosure

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and around an exterior of a case (Comprising 416, 417, 419) of the personal computer between a first region (Defined as being between the fan and the evaporator (514)) of the enclosure and a second region (Defined as being the space occupied by the computer (Comprising the CPU, motherboard, and other circuit cards)) of the enclosure, and an air conditioning unit (514) configured to draw air into the unit (As shown by the arrows in the first region), cool the air to within a selected range of temperatures, and blow the air into the enclosure (As indicated by the arrows).

With respect to claim 7, Anderson et al. further teaches that the air conditioning unit (514) is configured to draw air from the first region of the enclosure and blow the air into the second region of the enclosure (Via fan 510, 512).

With respect to claim 12, Anderson et al. further teaches a port (413) for access to a front side of the personal computer case.

With respect to claim 13, Anderson et al. further teaches an aperture (574) in a wall of the enclosure for passage of cables (As illustrated in Fig 14).

With respect to claim 14, Anderson et al. further teaches a cable port (574) located in a wall of the enclosure and configured to receive a jump cable (570, 576) for coupling the cable port to a service port of the computer, the cable port comprising a jump port configured to receive a service connection (As illustrated in Fig 14).

With respect to claim 16, Anderson et al. teaches a thermostat configured to control operation of the air conditioning unit according to a level of the temperature of the air in the enclosure (Column 4, Lines 43-49).

With respect to claim 18, Anderson et al. further teaches that the personal computer is separately encased in a tower case (Comprising 416, 417, 419, 423).

With respect to claim 20, Anderson et al. teaches a computer, comprising: a chassis (402) configured to receive computer components (433); a cover (413) configured to be coupled to the chassis in a substantially airtight seal and enclose the components; and a refrigeration unit (520) configured to draw air from a first region within the cover, cool the air to within a selected temperature range, and output the cooled air into a second region within the cover (As illustrated in Fig 10, the refrigeration unit takes air from an area above the evaporator (514) and blows it into a second area near sensor (560) all within the cover).

With respect to claim 24, as best can be understood by the examiner, Anderson et al. teaches a method of cooling a personal computer, comprising: drawing air into a cooling unit (514) coupled to an enclosure (402) of the personal computer; cooling the air, blowing the air from the cooling unit to a first region (Just after the evaporator) within the enclosure drawing the air from the first region into the personal computer (The personal computer comprises the CPU, circuit boards and the motherboard all housed adjacent to the evaporator (514) for cooling) positioned within the enclosure (402); transferring heat from components (Circuit boards, motherboard, and CPU) within the personal computer case to the air; and moving the air from the personal computer to a second region within the enclosure (Near the sensor 560).

With respect to claim 25, Anderson et al. further teaches that drawing air into the cooling unit step comprises; drawing air from the second region (Near 560) into the cooling unit (514).

With respect to claim 26, Anderson et al. further teaches exhausting the air outside the enclosure (Via 557), and the drawing air into the cooling unit step comprises drawing air from outside the enclosure (inevitably air will be drawn from external to the unit), into the cooling unit.

With respect to claim 27, Anderson et al. further teaches that the step of moving the air includes: Blowing the air with a fan (510, 512) at an exhaust location in the personal computer case to remove air from the personal computer (Air enters into the personal computer at the bottom shortly after the evaporator (514) and exits the personal computer at the exhaust location located at the top of the personal computer near sensor (560)).

With respect to claim 28, Anderson et al. further teaches a gasket (561) configured to substantially seal a space between an interior surface of the enclosure and the exterior of the personal computer case, on at least one side of the case (The gasket 561 as illustrated in Fig 10, is located between the exterior of the computer case and the interior of the enclosure).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al in view of Gianelo (US 6,589,308). With respect to claim 5, Anderson fails to teach the use of a filter configured to remove contaminants from air drawn into the air conditioning unit. Gianelo teaches a computer cabinet utilizing a filter (30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cabinet filter of Gianelo with the PC cooling system of Anderson et al. to filter out harmful particles from the air circulation path. Removing particles from the air would reduce the amount of dust and other particles within the system thus increasing the reliability of the computer system.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. With respect to claim 17, Anderson et al. fails to teach that the enclosure is configured to substantially enclose a plurality of personal computers. It would have been an obvious matter of design choice to extend the walls and door of the enclosure (of Anderson et al.) since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). Allowing more room for additional computers within the enclosure of Anderson et al. would reduce the overall cost to the user since the user would not have to buy a new enclosure for each unit.



Claim 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (274) et al in view of Andersson et al. (Patent # 5,398,159). With respect to claim 19, the combination of Anderson et al (274). meets the claim limitations expressed in claim 6 above, but fails to teach the use of a back-up ventilation system configured to operate in response to a failure of the air conditioning unit.

Andersson et al. (159) teaches the use of a back-up ventilation system configured to operate in response to a failure of the air conditioning unit. (Column 8, Lines 36-40) It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the backup ventilation system of Andersson et al. (159) with the air conditioning unit and cabinet of Anderson et al. (274) to permit continued operation of the computer equipment in the event that the air conditioning unit fails (Andersson (159); Column 8, Lines 38-40).

Claims 3-4, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (274) in view of Le et al. (US 5,038,308). With respect to claims 3 and 21, Anderson et al. (274) further teaches that the computer further comprises a motherboard (431) and a power supply (563) but fails to teach the use of a hard drive coupled to the chassis. Le et al. teaches a computer (100) comprising a hard drive (178). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the hard drive of Le et al. with the computer cooling system of Anderson et al. to provide a means of storing data within the computer system. The ability to store information on a fixed hard disk drive allows

the computer to operate more efficiently since a hard disk drive is able to hold larger quantities of information.

With respect to claim 22, Le et al. further teaches that the computer system further comprises a disk drive (182) which is configured to allow access from outside a computer cover (109; As illustrated in Fig 1).

With respect to claims 4 and 23, Le et al. further teaches that the cover includes a video port (164) and the system further comprises a video monitor (104) coupled to the video port. The video port and the video monitor must inherently be connected via a cable to pass the information from the computer main system (102) to the video monitor (104).

#### ***Allowable Subject Matter***

4. Claim 29 is allowed.

Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 9, the allowability resides in the overall structure of the device as recited in dependent claim 9 and at least in part because claim 9 recites, "on three sides of the case".

The aforementioned limitations in combination with all remaining limitations of claims 6 and 9 are believed to render said claim 9 patentable over the art of record.

With respect to claim 10, the allowability resides in the overall structure of the device as recited in dependent claim 10 and at least in part because claim 10 recites, "configured to selectively draw air from the first region of the enclosure or draw air from a region of the exterior of the enclosure".

The aforementioned limitations in combination with all remaining limitations of claims 6 and 10 are believed to render said claim 10 and all claims (11) dependent therefrom patentable over the art of record.

With respect to claim 29, the allowability resides in the overall structure of the device as recited in independent claim 29 and at least in part because claim 29 recites, "to selectively draw air into the unit from a first region of the enclosure or draw air from a region of the exterior of the enclosure".

The aforementioned limitations in combination with all remaining limitations of claim 29 are believed to render said claim 29 patentable over the art of record.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 20, and 24 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached on Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZMP



**ANATOLY VORTMAN  
PRIMARY EXAMINER**